

CLAIMS

1. An exhaust gas turbocharger comprising:

a twin scroll turbine housing;

5 a turbine wheel positioned in said twin scroll housing;

exhaust gas inlets, operatively connected to port exhaust gas through each side
of said twin scroll turbine housing and onto said turbine wheel;

a bypass, operatively connected to port exhaust gas around said exhaust gas
inlets to bypass said turbine wheel; and

10 a valve, operatively positioned to control exhaust gas flow to said exhaust gas
inlets and said bypass.

2. The exhaust gas turbocharger of claim 1, where said valve is a barrel valve.

15 3. The exhaust gas turbocharger of claim 1, where said valve can be positioned to
completely block said exhaust gas inlets on start-up to direct exhaust gas to heat a
catalytic converter.

4. The exhaust gas turbocharger of claim 1, further comprising an electronic
20 controller operationally coupled to position said valve.

5. An exhaust gas turbocharger mounted on a gasoline fueled engine, said exhaust
gas turbocharger comprising:

a twin scroll turbine housing;
a turbine wheel positioned in said twin scroll housing;
exhaust gas inlets, operatively connected to port exhaust gas through each side
of said twin scroll turbine housing and onto said turbine wheel;
5 a bypass, operatively connected to port exhaust gas around said exhaust gas
inlets to bypass said turbine wheel;
a valve, operatively positioned to control exhaust gas flow to said exhaust gas
inlets and said bypass; and
a processor configured to position said valve.

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6. The exhaust gas turbocharger of claim 5, where said valve is a barrel valve.

7. The exhaust gas turbocharger of claim 5, where said valve can be positioned to
completely block said exhaust gas inlets on start-up to direct all exhaust gas to heat a
15 catalytic converter.